

THE DIRECTOR OF
CENTRAL INTELLIGENCE

Deputy Director for National Foreign Assessment

11 August 1981

NOTE FOR: Director, National Foreign
Assessment Center

This memo on the effect of GE getting
out of the nuclear reactor business was
prepared by OSWR and OER analysts per the
DCI's request to you. It is unclassified.

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SUBJECT: Effect of General Electric Discontinuance
of Nuclear Reactor Manufacture

General Electric's closing of its nuclear reactor operations should have very little effect on nuclear power programs around the world. GE's reactor design--the boiling water reactor (BWR)--has been built in very small numbers relative to the competing pressurized water reactor (PWR). Further, GE's business has been falling off badly in recent years; there have been no new BWR orders for several years, and many cancellations of earlier orders.

In addition, most of GE's reactor business has been in the United States and very little abroad. Only about 15 GE-built BWRs are in operation overseas, some of them only small prototypes. Another six are still under construction (two in Mexico, two in Spain, and two in Taiwan). There is no reason to think that GE would not complete construction of these reactors.

GE-licenced reactor manufacturers will continue to operate in several countries. Both AEG and KWU have built and continue to build BWRs under GE licence in West Germany. Similarly, both Hitachi and Toshiba have built and continue to build BWRs under GE licence in Japan. Reactor vendors in other countries have also built GE BWRs. There is thus no lack of companies capable of supplying parts and fuel for GE reactors. Many parts (valves, etc) are standard and not of GE manufacture in any case.

As time goes on, these other BWR manufacturers will modify their technology and manufacture reactors different from the GE

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designs. This will decrease their ability to provide parts and service for GE reactors. Also, these manufacturers might eventually succumb to the same pressure as the GE reactor operation. This does not seem to be a problem in the near term, however. In any case, one BWR manufacturer, ASEA Atom of Sweden, is not affiliated with GE.

Only about 25 percent of the approximately 250 reactors now operating in the world (including US reactors) are BWRs; almost twice as many PWRs are in operation. Very few BWRs are planned beyond those now under construction; several times as many PWRs are planned -- and comprise by far the largest percentage of all planned reactors. Other reactor types (gas cooled, heavy water, breeders, etc) make up only 25 percent of operating reactors and slightly over 10 percent of planned reactors. PWRs are manufactured by three major companies--US Westinghouse, French Framatome, and West German Kraftwerk Union--and a variety of smaller manufacturers in the United States and other countries.

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